Marked-up Version Substitute Specification

ONLINE ENTRUSTING SYSTEM

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

The present invention relates to an online entrusting system, and more specifically, relates to an online entrusting system for processing the ~~requiring~~required information relating to semiconductor~~integrated circuit~~ package~~s~~.

2. DESCRIPTION OF THE PRIOR ART

Modern network systems allows customers and companies to electronically communicate with each other to share and transfer information by computers. The electronic commerce, i.e. the E-commerce, becomes the trend for transaction. Conventional commerce allows a salesman to use a telephone or a facsimile machine to negotiate a business with a customer. The conventional commercial method is so slow and so expensive. The rapidly developed internet has enabled computers to provide an efficient, widely accessible, and secure mechanism for transacting the business by the E-commerce.

A feature of the E-commerce for transacting the business is the capability of~~or~~ integrating the information ~~came~~ from different electrical systems to perfectly process the requisitions of users at real time. The transaction

performed by the high level processor reduces the cost of the manpower. ~~by processing the manual works according to operate the high level processor. The economized cost can reduce the price for transacting the business and increase~~ The~~the~~ intention of customers and users to transact the business by the E-commerce is increased owing to its low cost.

However, the security issues are the most important questions for transacting the business by the E-commerce. Users may worry the leakage of personal information such as ~~the~~ credit card number, account number~~being leaked~~. The business transacted by the business (B2B) type E-commerce may contain the confidential information of a company. If the trade secret is leaked or fetched by others, the company will lose technology or privilege information. At present, most of the information is encrypted before transmission. For example, SSL 128 bits is a typically technology to protect the information from being fetched or leaked.

Further, the limitation of the time and the space for transacting the business by the E-commerce is less and less. However, for example, a conventional entrust system for transacting the business has to analyze~~analysis~~ the orders or the requisitions from~~of~~ customers before performing any action about the orders or the requisitions by a computer or the manpower. Then, the customers have to wait for receiving the result about the orders or the requisitions several~~many~~ days later. The time and the process for processing the orders and the requisitions are~~is~~

so long and so complex. It is necessary to develop a novel automatic entrusting system to overcome the disadvantages in the prior art.

SUMMARY OF THE INVENTION

In terms of~~Base on~~ the previous discussion, the object of the present invention is to provide a system for automatically producing an analysis result according to a ~~requiring~~required information, i.e. a ~~packaging~~semiconductor package~~–~~information, on an order inputted by a user. The online entrusting system also responds the analysis result to the user.

The present invention provides an online entrusting system. The online entrusting system comprises a ~~processing controller~~manage and control unit to process an order inputted by a user, wherein the order comprises a ~~requiring~~required information. A database is coupled to the ~~processing controller~~manage and control unit to store the ~~requiring~~required information and a schedule information. A plurality of analysis~~analyzing~~ modules coupled to the ~~processing controller~~manage and control unit produces an analysis result about the ~~requiring~~required information inputted by the user. A reply~~replying~~ means responds the analysis result produced by the analysis~~analyzing~~ modules to the user. Furthermore, ~~Wherein~~ the user communicates with the online entrusting system via internet. The ~~requiring~~required information ~~may includes~~is selected from at least one information of a substrate type, a~~the~~ die

dimension, a package type, a~~the~~ thermal performance, an~~the~~ amount ~~and the type~~ of substrate layers, ~~the~~ numbers of the input terminals and output terminals, and ~~the~~ pitchs between the input terminals and output terminals.

The present invention also discloses~~disclosed~~ a method for automatically providing online package entrusting comprises:

inputting an ~~requiring~~required information about a semiconductor package by a user;

storing the ~~requiring~~required information in a database;

producing a plurality of analysis results by a plurality of analysis modules according to the ~~requiring~~required information of the order;

recording the analysis results in the database; and

responding the analysis results to the user by a reply~~replying~~ means.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1~~Fig. 1~~ is a functional diagram of the system according to the present invention ; and

FIG. 2~~Fig. 2~~ is a flow chart diagram according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention discloses an online entrusting system to automatically provide an analysis result about a ~~requiring~~required information ~~of an order being attained or not to a user, wherein the requiring information of the order is~~ inputted by the user. The online entrusting system automatically analyzes ~~everything about~~ the ~~requiring~~required information and responds the analysis result to the user by integrating each element of the online entrusting system and each analysis step ~~of analyzing~~. While the online entrusting system is coupled to ~~operates and connects with~~ a high-efficiency~~effective~~ server, the online entrusting system operates more effectively to process~~treat~~ and respond the ~~requiring~~required information to the user.

As shown in FIG. 1~~Fig. 1~~, the client end 100 may fill the blank on an~~the~~ interface 101 of the present system by a user. The items on the interface include but not limited to the ~~requiring~~required information, i.e. a semiconductor package~~packaging~~ information, a personal information, a material and an~~the~~ analysis service including a~~the~~ thermal performance analysis, a circuits analysis, a stress analysis, a reliability analysis, a material analysis and a substrate analysis. The ~~requiring~~required information is selected from at least one information of~~includes~~ a substrate type, a~~the~~ die dimension, a package type, a~~the~~ thermal performance, an~~the~~ amount ~~and the type~~ of substrate layers, numbers~~the amount~~ of the input terminals and output terminals, pitches~~the pitch~~ between the input terminals and output terminals.

The user or users may select one or more services via the communication interface, i.e. the interface 101. The information will be transmitted to the database, i.e. an~~the~~ entrusting database 103, of the entrusting system and the entrusting database 103 records the order from a~~the~~ client end 100. The entrusting database 103 transmits the order to an~~the~~ entrusting system server 112 that includes a manage and control unit 104 and a reply~~replying~~ means 105. The manage and control unit 104 performs the request~~need~~ according to the order and sends related information to ~~the~~ corresponding analysis modules. The analysis modules are selected from at least one of ~~include~~ a~~the~~ thermal analysis module 106, a circuit analysis module 107, a stress analysis module 108, a reliability analysis module 109, a material analysis module 110 and a substrate analysis module 111. Each analysis module may include a sub-database for recording the analysis records. The analysis result is then forwarded to the manage and control unit 104. Subsequently, the manage and control unit 104 sends the information to the entrusting database 103 and the reply~~replying~~ means 105. The entrusting database 103 records the order and the analysis results to prepare for responding the results to the user at any time via different methods, such as~~i.e.~~ the network, sending an e-mail, or a facsimile. The reply~~replying~~ means 105 may transform the analysis results to an electronic mail format and forward to the user, or the client, via the network. The reply~~replying~~ means will send the report about the ~~requiring~~required information and a schedule information to the client end 100 by an e-mail, a facsimile, a short message or the like~~something like that~~. The e-mail system

is an~~used for~~ example, not used to limit the scope of the present invention. The schedule information includes the progress information about processing the order and the result for processing the order.

FIG. 2~~Fig. 2~~ is a flow chart in accordance with the present invention. The user may login the system and then input the data, i.e. a ~~requiring~~required information, via a~~the~~ network 102, as shown in step 201. As shown in step 202, the entrusting database 103 records the ~~requiring~~required information ~~therein~~ and sends the ~~requiring~~required information to the manage and control unit 104. Then the manage and control unit 104 determines ~~what type the user selected and~~ what service the user requested, as shown in step 203. The manage and control unit 104 controls a plurality of analysis modules to analyze~~analysis everything according to~~ the ~~requiring~~required information provided by the user. If the ~~requiring~~required information is insufficient~~not certainly or enough~~ to determine what kind of analysis the user wants, the reply~~replying~~ means 105 will ask the user to provide more ~~requiring~~required information again, as shown in step 201. ~~The s~~Steps 214, 224, 234, 244, 254 and 264 are to perform the thermal performance analysis, the circuit analysis, the stress analysis, the reliability analysis, the material analysis and the substrate analysis respectively.

The analysis~~analyzing~~ result will be responded to the manage and control unit 104, and then the manage and control unit 104 collects the results as shown in step 205. The manage and control unit 104 stores the

~~requiring~~required information and the analysis results in the entrusting database 103 capable of being inquired~~for inquiring~~ by the user, i.e. the client, as shown in step 206. Subsequently, the stored information will be responded to the reply~~replying~~ means 105 to notify the user. The results are responded to the client end 100 in step 207 by the system via an~~the~~ e-mail, a~~the~~ facsimile or the like.

As is understood by a person skilled in the art, the foregoing preferred embodiments of the present invention are illustrated of the present invention rather than limiting of the present invention. It is intended to cover various modifications and similar arrangements included within the spirit and scope of the appended claims, the scope of which should be accorded the broadest interpretation so as to encompass all such modifications and similar structure. Thus, while the preferred embodiment of the invention has been illustrated and described, it will be appreciated that various changes can be made therein without departing from the spirit and scope of the invention.